ANIMAL DISEASE ALERT

United States Department of Agriculture • Animal and Plant Health Inspection Service

Avian Influenza

A Threat to U.S. Poultry

Worldwide, there are many strains of avian influenza (AI) virus that can cause varying amounts of clinical illness in poultry. AI viruses can infect chickens, turkeys, pheasants, quail, ducks, geese, and guinea fowl, as well as a wide variety of other birds. Migratory waterfowl have proved to be the natural reservoir for this disease.

AI viruses can be classified into low pathogenic (LPAI) and highly pathogenic (HPAI) forms based on the severity of the illness they cause. Most AI virus strains are LPAI and typically cause little or no clinical signs in infected birds. However, some LPAI virus strains are capable of mutating under field conditions into HPAI viruses, which cause more illness in infected birds. The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) works to keep HPAI from becoming established in the U.S. poultry population.

AI can strike poultry quickly without any infection warning signs. Once established, the disease can spread rapidly from flock to flock. It is essential for the U.S. poultry industry to be alert to this disease threat.

Clinical Signs

Birds affected with all forms of AI may show one or more of the following signs:

- Sudden death without clinical signs
- Lack of energy and appetite
- Decreased egg production
- Soft-shelled or misshapen eggs
- Swelling of the head, eyelids, comb, wattles, and hocks
- Purple discoloration of the wattles, combs, and legs
- Nasal discharge
- Coughing, sneezing
- Incoordination
- Diarrhea

Introduction and Spread of AI Virus

Exposure of poultry to migratory waterfowl and the international movement of poultry, poultry equipment, and people pose risks for introducing AI into U.S. poultry. Once introduced, the disease can be spread from bird to bird by direct contact. AI viruses can also be spread by manure, equipment, vehicles, egg flats, crates, and people whose clothing or shoes have come in contact with the virus. AI viruses can remain viable at moderate temperatures for long periods in the environment and can survive indefinitely in frozen material.

Birds affected by AI may show swelling of the head and face.

Purple discoloration of the comb may be an indicator of AI.

Biosecurity Measures on the Farm

Poultry producers should strengthen biosecurity practices to prevent the introduction of AI into their flocks. The following are some sound biosecurity practices:

- Keep an “all-in, all-out” philosophy of flock management.
- Protect poultry flocks from coming into contact with wild or migratory birds. Keep poultry away from any source of water that may have been contaminated by wild birds.
- Permit only essential workers and vehicles to enter the farm.
- Provide clean clothing and disinfection facilities for employees.
- Thoroughly clean and disinfect equipment and vehicles (including tires and undercarriage) entering and leaving the farm.
- Do not loan to, or borrow equipment or vehicles from, other farms.
- Avoid visiting other poultry farms. If you do visit another farm or live-bird market, change footwear and clothing before working with your own flock.
- Do not bring birds from slaughter channels, especially live-bird markets, back to the farm.

A biosecure broiler house protects poultry flocks from coming into contact with wild or migratory birds.

Allowing a backyard flock to commingle with wild waterfowl poses the risk of introducing AI into poultry.

Report Suspicious Signs

If birds exhibit clinical signs of AI or may have been exposed to birds with the disease, immediately notify Federal or State animal health officials.

AI can overwhelm a healthy broiler flock, leaving high rates of mortality and economic losses.

Here, healthy turkeys are compared with turkeys exhibiting signs of diarrhea and depression due to AI. One gram of contaminated manure can contain enough virus to infect 1 million birds.